

Recommendations to Improve Preconception Health and Health Care



Dear Colleague,

A healthy mother and a healthy baby are valued hopes and dreams of families of all cultural heritages. While we have made great progress in ensuring healthier pregnancies and babies over the past several decades, we still have much to do. Birth defects, low birth weight births, preterm deliveries, and infant deaths continue to be higher than the goals outlined in Healthy People 2010, the nation's health agenda. We know that a woman's preconception health, her health prior to becoming pregnant, plays an important role in determining the outcome for her and her baby. Research has identified several important preconception risks factors that should be addressed prior to conception to optimize the chances for a healthy mother and baby. As such, it is a pleasure to inform you that after many months of hard work we, along with our partners, have published national recommendations for improving preconception health and health care (MMWR 2006;55(No. RR-6). The following pages include highlights of these recommendations.

These recommendations are designed to promote optimal health throughout the life span for women, children, and families by using both clinical care and population-focused public health strategies. We developed these recommendations by 1) reviewing published research; 2) convening the CDC/ASTDR Preconception Care Work Group, representing 22 programs ; 3) evaluating presentations of best and emerging practice models at the National Summit on Preconception Care; and 4) convening the Select Panel on Preconception Care (SPPC), comprised of subject matter experts from the fields of obstetrics, gynecology, nursing, public health, midwifery, epidemiology, dentistry, family practice, pediatrics, and others. These recommendations reflect the body of evidence and professional opinion and practice in medicine, public health, and related fields, which is sufficient to guide changes in program, practice, and policy.

On behalf of the CDC, I would like to express our deepest appreciation for all those who contributed to this process – all the researchers, individual subject matter experts, program practitioners, and providers who meticulously reviewed the literature to develop these recommendations. We feel these recommendations respond to critical issues that can help to improve perinatal outcomes for women, infants, couples, and families by challenging them to assume personal responsibility, and empowering them to develop a lifetime reproductive health plan. These recommendations represent only the first steps to ensure that all women are in optimal health before becoming pregnant, and that all babies are born healthy. Our challenge is to translate these suggestions, goals, and action plans into appropriate interventions. We have come this far because of all your hard work. And by continuing to combine our efforts into the future, we will achieve our goal of healthy women, healthy mothers and healthy babies and children.

Thank you,



A handwritten signature in black ink that reads "José F. Cordero". The signature is fluid and cursive, with the first name "José" and last name "Cordero" clearly legible.

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Preconception Health and Health Care Vision, Definition, Goals, Recommendations and Action Steps

Our Vision for Improving Preconception Health and Pregnancy Outcomes

All women and men of childbearing age have high reproductive awareness (i.e., understand risk and protective factors related to childbearing).

All women have a reproductive life plan (e.g., whether or when they wish to have children, and how they will maintain their reproductive health).

All pregnancies are intended and planned.

All women and men of childbearing age have health coverage.

All women of childbearing age are screened before pregnancy for risks related to the outcomes of pregnancy.

Women with a Previous Adverse Pregnancy Outcome

(e.g., infant death, very low birthweight or preterm birth) have access to interconception care aimed at reducing their risks.

Definition of Preconception Care

Preconception care is comprised of interventions that aim to identify and modify biomedical, behavioral, and social risks to a woman's health or pregnancy outcome through prevention and management, emphasizing those factors which must be acted on before conception or early in pregnancy to have maximal impact. Thus, it is more than a single visit and less than all well-woman care. It includes care before a first pregnancy or between pregnancies (commonly known as interconception care). While the predominant component addresses women's health it includes interventions directed at males, couples, families and society at large.

Our Goals

- Goal 1.** Improve the knowledge and attitudes and behaviors of men and women related to preconception health.
- Goal 2.** Assure that all women of childbearing age in the United States receive preconception care services (i.e., evidence-based risk screening, health promotion, and interventions) that will enable them to enter pregnancy in optimal health.
- Goal 3.** Reduce risks indicated by a previous adverse pregnancy outcome through interventions during the interconception period, which can prevent or minimize health problems for a mother and her future children.
- Goal 4.** Reduce the disparities in adverse pregnancy outcomes.

Recommendations and Action Steps

Recommendation 1. Individual Responsibility Across the Lifespan.

Each woman, man, and couple should be encouraged to have a reproductive life plan.

Action Steps:

- Develop, evaluate, and disseminate reproductive life planning tools for women and men in their childbearing years, respecting variations in age; literacy, including health literacy; and cultural/linguistic contexts.
- Conduct research leading to development, dissemination, and evaluation of individual health education materials for women and men regarding preconception risk factors, including materials related to biomedical, behavioral, and social risks known to affect pregnancy outcomes.

Recommendation 2. Consumer Awareness.

Increase public awareness of the importance of preconception health behaviors and preconception care services by using information and tools appropriate across various ages; literacy, including health literacy; and cultural/linguistic contexts.

Action Steps:

- Develop, evaluate, and disseminate age-appropriate educational curricula and modules for use in school health education programs.
- Integrate reproductive health messages into existing health promotion campaigns (e.g., campaigns to reduce obesity and smoking).
- Conduct consumer-focused research necessary to identify terms the public understands and develop messages for promoting preconception health and reproductive awareness.
- Design and conduct social marketing campaigns necessary to develop messages for promoting preconception health knowledge and attitudes, and behaviors among men and women of childbearing age.
- Engage media partners to assist in depicting positive role models for lifestyles that promote reproductive health (e.g., delaying initiation of sexual activity, abstaining from unprotected sexual intercourse, and avoiding use of alcohol and drugs).

Recommendation 3. Preventive Visits.

As a part of primary care visits, provide risk assessment and educational and health promotion counseling to all

women of childbearing age to reduce reproductive risks and improve pregnancy outcomes.

Action Steps:

- Increase health provider (including primary and specialty care providers) awareness regarding the importance of addressing preconception health among all women of childbearing age.
- Develop and implement curricula on preconception care for use in clinical education at graduate, postgraduate, and continuing education levels.
- Consolidate and disseminate existing professional guidelines to develop a recommended screening and health promotion package.
- Develop, evaluate, and disseminate practical screening tools for primary care settings, with emphasis on the 10 areas for preconception risk assessment (e.g., reproductive history, genetic, and environmental risk factors).
- Develop, evaluate, and disseminate evidence-based models for integrating components of preconception care to facilitate delivery of and demand for prevention and intervention services.
- Apply quality improvement techniques (e.g., conduct rapid improvement cycles, establish benchmarks and brief provider training, use practice self-audits, and participate in quality improvement collaborative groups) to improve provider knowledge and attitudes, and practices and to reduce missed opportunities for screening and health promotion.
- Use the federally funded collaboratives for community health centers and other Federally Qualified Health Centers to improve the quality of preconception risk assessment, health promotion, and interventions provided through primary care.
- Develop fiscal incentives for screening and health promotion.

Recommendation 4.

Interventions for Identified Risks.

Increase the proportion of women who receive interventions as follow-up to preconception risk screening, focusing on high priority interventions (i.e., those with evidence of effectiveness and greatest potential impact).

Action Steps:

- Increase health provider (including primary and specialty care providers) awareness concerning the importance of ongoing care for chronic conditions and intervention for identified risk factors.
- Develop and implement modules on preconception care for specific clinical conditions for use in clinical education at graduate, postgraduate, and continuing education levels.
- Consolidate and disseminate existing guidelines related to evidence-based interventions for conditions and risk factors.

- Disseminate existing evidence-based interventions that address risk factors that can be used in primary care settings (i.e., isotretinoin, alcohol misuse, anti-epileptic drugs, diabetes [preconception], folic acid deficiency, hepatitis B, HIV/AIDS, hypothyroidism, maternal phenylketonuria [PKU], rubella seronegativity, obesity, oral anticoagulant, STD, and smoking).
- Develop fiscal incentives (e.g., pay for performance) for risk management, particularly in managed care settings.
- Apply quality improvement techniques and tools (e.g., conduct rapid improvement cycles, establish benchmarks, use practice self-audits, and participate in quality improvement collaborative groups).

Recommendation 5. Interconception Care.

Use the interconception period to provide additional intensive interventions to women who have had a previous pregnancy that ended in an adverse outcome (i.e., infant death, fetal loss, birth defects, low birthweight, or preterm birth).

Action Steps:

- Monitor the percentage of women who complete postpartum visits (e.g. using the Health Employer Data and Information Set measures for managed care plans and Title V Maternal Child Health Block Grant state measures), and use these data to identify communities of women at risk and opportunities to improve provider follow-up.
- Develop, evaluate, and replicate intensive evidence-based interconception care and care coordination models for women at high social and medical risk.
- Enhance the content of postpartum visits to promote interconception health.
- Use existing public health programs serving women in the postpartum period to provide or link to interventions (e.g., family planning, home visiting, and the Special Supplemental Nutrition Program for Women, Infants, and Children).
- Encourage additional states to develop preconception health improvement projects with funds from the Title V Maternal Child Health Block Grant, Prevention Block Grant, and similar public health programs.

Recommendation 6. Pregpregnancy Checkup.

Offer, as a component of maternity care, one pregpregnancy visit for couples and persons planning pregnancy.

Action Steps:

- Consolidate existing professional guidelines to develop the recommended content and approach for such a visit.
- Modify third party payer rules to permit payment for one prepregnancy visit per pregnancy, including development of billing and payment mechanisms.
- Educate women and couples regarding the value and availability of prepregnancy planning visits.

Recommendation 7.

Health Insurance Coverage for Women with Low Incomes.

Increase public and private health insurance coverage for women with low incomes to improve access to preventive women's health and preconception and interconception care.

Action Steps:

- Improve the design of family planning waivers by permitting states (by federal waiver or by creating a new state option) to offer interconception risk assessment, counseling, and interventions along with family planning services. Such policy developments would create new opportunities to finance interconception care.
- Increase health coverage among women who have low incomes and are of childbearing age by using federal options and waivers under public and private health insurance systems and the State Children's Health Insurance Program.
- Increase access to health-care services through policies and reimbursement levels for public and private health insurance systems to include a full range of clinicians who care for women.

Recommendation 8.

Public Health Programs and Strategies.

Integrate components of preconception health into existing local public health and related programs, including emphasis on interconception interventions for women with previous adverse outcomes.

Action Steps:

- Use federal and state agency support to encourage more integrated preconception health practices in clinics and programs.
- Provide support for CDC programs to develop, evaluate, and disseminate integrated approaches to promote preconception health.

- Analyze and evaluate the preconception care activities used under the federal Healthy Start program, and support replication projects.
- Convene or use local task forces, coalitions, or committees to discuss opportunities for promotion and prevention in preconception health at the community level.
- Develop and support public health practice collaborative groups to promote shared learning and dissemination of approaches for increasing preconception health.
- Include content related to preconception care in educational curricula of schools of public health and other training facilities for public health professionals.

Recommendation 9. Research.

Increase the evidence base and promote the use of the evidence to improve preconception health.

Action Steps:

- Prepare an updated evidence-based systematic review of all published reports on science, programs, and policy (e.g., through the Agency for Healthcare Research and Quality).
- Encourage and support evaluation of model programs and projects, including integrated service delivery and community health promotion projects.
- Conduct quantitative and qualitative studies to advance knowledge of preconception risks and clinical and public health interventions, including knowledge of more integrated practice strategies and interconception approaches.
- Design and conduct analyses of cost-benefit and cost-effectiveness as part of the study of preconception interventions.
- Conduct health services research to explore barriers to evidence-based and guidelines-based practice.
- Conduct studies to examine the factors that results in variations in individual use of preconception care (i.e., barriers and motivators that affect health-care use).

Recommendation 10. Monitoring Improvements.

Maximize public health surveillance and related research mechanisms to monitor preconception health.

Action Steps:

- Apply public health surveillance strategies to monitor selected preconception health indicators (e.g., folic acid supplementation, smoking cessation, alcohol misuse, diabetes, and obesity).

- Expand data systems and surveys (e.g., the Pregnancy Risk Assessment and Monitoring System and the National Survey of Family Growth) to monitor individual experiences related to preconception care.
- Use geographic information system techniques to target preconception health programs and interventions to areas where high rates of poor health outcomes exist for women of reproductive age and their infants.
- Use analytic tools (e.g., Perinatal Periods of Risk) to measure and monitor the proportion of risk attributable to the health of women before pregnancy.
- Include preconception, interconception, and health status measures in population-based performance monitoring systems (e.g., in national and state Title V programs).
- Include a measure of the delivery of preconception care services in the *Healthy People 2020* objectives.
- Develop and implement indicator quality improvement measures for all aspects of preconception care. For example, use the Health Employer Data and Information Set measures to monitor the percentage of women who complete preconception care and postpartum visits or pay for performance measures.

Participating Organizations: Federal

➤ **Department of Health and Human Services**

○ **Agency for Healthcare Research and Quality**

- Center for Outcomes and Evidence

○ **Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry:**

- National Center on Birth Defects and Developmental Disabilities
 - Office of the Director
 - Division of Hereditary Blood Disorders
 - Division of Birth Defects and Developmental Disabilities
- National Center for Chronic Disease Prevention and Health Promotion
 - Division of Adult and Community Health
 - Office of Genetics and Disease Prevention
 - Division of Reproductive Health
 - Division of Oral Health
 - Division of Nutrition and Physical Activity
 - Division of Diabetes Translation
 - Office on Smoking and Health
 - Division of Adolescent and School Health
- National Center for HIV/STD/TB Prevention
 - Division of HIV/AIDS Prevention
 - Division of STD Prevention
- National Center for Infectious Diseases
 - Division of Bacterial and Mycotic Diseases
 - Division of Viral Hepatitis
- CDC Office of the Director
 - Office of Women's Health
- Coordinating Center for Environmental Health & Injury Prevention
- Agency for Toxic Substances and Disease Registry
 - Division of Health Education and Promotion

- National Center for Health Marketing
 - Division of Private and Public Partnerships
- National Immunization Program
- **Health Resources and Services Administration**
 - Maternal and Child Health Bureau
- **National Institutes for Health**
 - National Institute of Child Health and Human Development
- **Office of the Secretary**
 - Office of Public Health and Science
 - Office on Women's Health

Participating Organizations: Private Sector

- **American Academy of Family Physicians (AAFP)**
- **American Academy of Pediatrics (AAP)**
- **American College of Nurse-Midwives (ACNM)**
- **American College of Obstetricians and Gynecologists (ACOG)**
- **American College of Osteopathic Obstetrics and Gynecology**
- **American Osteopathic Association (AOA)**
- **Association of Asian Pacific Community Health Organizations (AAPCHO)**
- **Association of Maternal and Child Health Programs (AMCHP)**
- **Association of State and Territorial Health Officials (ASTHO)**
- **Associations of Women's Health, Obstetric and Neonatal Nurses (AWHONN)**
- **CityMatCH**
- **Healthy Start Coalition of Miami-Dade**
- **March of Dimes (MOD)**
- **Maternity Center Association (MCA)**
- **National Alliance for Hispanic Health**
- **National Association of Community Health Centers (NACHC)**
- **National Association of County and City Health Officials (NACCHO)**
- **National Birth Defects Prevention Network (NBDPN)**
- **National Healthy Mothers, Healthy Babies Coalition (HM,HB)**
- **National Healthy Start Association (NHSA)**
- **National Hispanic Medical Association (NHMA)**
- **National Medical Association (NMA)**
- **National Partnership to Help Pregnant Smokers Quit; Smoke-Free Families**
- **National Perinatal Association (NPA)**
- **National Society of Genetic Counselors (NSGC)**
- **Society for Maternal Fetal Medicine (SMFM)**
- **Task Force for Child Survival and Development**
- **The Jacobs Institute for Women's Health (JIWH)**



national society
of genetic
counselors, inc.



